

Appl. No. 10/037,670
Amdt. dated 01/10/2005
Reply to Office action of 10/08/2004

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended):

A method, comprising:

receiving from a first requester a request to write a second indicator that comprises an identifier of the first requester to a first indicator that indicates if a component is available;

determining, in response to being accessed by a receiving the write request from the first requester, whether a-the component is available; and

replacing, if the component is available, a-the first indicator indicating that the shared resource is available, with a-the second indicator reducing access to the component, to permit access to the component by the first requester.

2-6. (cancelled)

7. (currently amended):

The method of ~~claim 2, claim 1~~, wherein determining, in response to ~~being accessed by receiving the write request from the first requester~~, whether the component is available comprises determining a presence of the first indicator.

8. (currently amended):

The method of ~~claim 2, claim 1~~, wherein determining, in response to ~~being accessed by receiving the write request from the first requester~~, whether the component is available comprises determining based on an external indicator that the component is available.

9. (original):

The method of claim 8, wherein the external indicator comprises a flag.

10. (currently amended):

The method of ~~claim 2, claim 1~~, further comprising receiving, by execution of ~~an operation a write request~~ by a second requester upon completion of access to the component by the second requester, a third indicator increasing access to the component to replace the second indicator.

11. (original):

The method of claim 10, wherein the operation comprises a write of the third indicator.

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12. (original):

The method of claim 11, wherein the first requester and the second requester comprise processes.

13. (original):

The method of claim 11, wherein the first requester and the second requester comprise one requester.

14. (original):

The method of claim 11, wherein the first indicator and the third indicator comprise a same indicator.

15. (currently amended):

A method, comprising:

receiving from a first requester a request to write a second indicator that comprises an identifier of the first requester to a first indicator that indicates if a component is available;

determining, in response to being accessed by a receiving the write request from the first requester, whether a the component is available;

prohibiting accesses to the component by one or more additional requesters;

replacing, because the component is available, a the first indicator indicating that the component is available, with a the second indicator reducing access to the component;
and

allowing the first requester to indicate that the component is available.

16-18. (cancelled)

19. (currently amended):

The method of ~~claim 17, claim 15~~, wherein the ~~registers comprise first indicator is maintained in a set-by-write register~~ registers written to by processes attempting to access the component.

20-21. (cancelled)

22. (currently amended):

The method of ~~claim 17, claim 15~~, wherein determining, in response to ~~being accessed by receiving the write request from the first requester~~, whether the component is available comprises determining a presence of the first indicator indicating that a component is available.

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23. (currently amended):

The method of ~~claim 17, claim 15~~, wherein determining, in response to ~~being accessed by receiving the write request from~~ the first requester, whether the component is available comprises determining based on an external indicator that the component is available.

24. (original):

The method of claim 23, wherein the external indicator comprises a flag.

25. (currently amended):

The method of claim 17, further comprising:

receiving from a second requester a request to write a third indicator increasing access to the component;

determining, because of receiving the third indicator, that access to the component has been increased; and

replacing the second indicator with the third indicator increasing access to the component.

26. (original):

The method of claim 25, wherein the first requester and the second requester comprise one requester.

27. (currently amended):

A method of obtaining access to a shared resource, comprising:

writing a second value to ~~accessing a~~ register; and

changing, as a result of accessing-writing to the register if the register detects a first value; indicating that the shared resource is available, the first value to a the second value; and

limiting access to the shared resource.

28-29. (cancelled)

30. (currently amended):

The method of claim 29, wherein the second value comprises an identifier of a ~~process~~, process that requests the writing of the second value.

31. (original):

The method of claim 30, further comprising reading the register to determine that the register contains the identifier.

32. (original):

The method of claim 27, wherein the shared resource comprises a peripheral device in a computer system.

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33. (original):

The method of claim 27, further comprising:

receiving from the register the first value indicating that the shared resource is available;
accessing the shared resource; and
changing upon completion of access to the shared resource, the second value to a third value increasing access to the shared resource.

34. (original):

The method of claim 33, wherein changing the second value to the third value comprises writing the third value to the register.

35. (original):

The method of claim 34, wherein the first value, the second value and the third value comprise variables.

36. (original):

The method of claim 35, wherein the first value and the third value comprise a same variable.

37. (currently amended):

A method, comprising:

executing by a process a request from a requester to write an identifier of the requester;
an operation;

determining by a register, in response to the request, operation, whether a first indicator allowing access to a shared resource is present in the register;

changing by the register if the first indicator is present, the first indicator to a second indicator comprising the identifier of the requester and reducing access the shared resource;

sending by the register the first indicator to the process;

determining by the process receipt of the first indicator;

using by the process the shared resource; and

replacing by the process the second indicator with a third indicator increasing access to the shared resource.

38-40. (cancelled)

41. (currently amended):

The method of ~~claim 40,~~ claim 37, wherein the register comprises a set-by-write register.

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42. (cancelled)

43. (currently amended):

The method of ~~claim 42, claim 37~~, further comprising reading the register to determine that the register contains the identifier.

44. (original):

The method of claim 43, wherein replacing the second indicator with the third indicator comprises writing the third indicator to the register.

45. (original):

The method of claim 44, wherein the first indicator and the third indicator comprise the same indicator.

46. (currently amended):

An article of manufacture comprising a machine-accessible medium including thereon sequences of instructions that, when executed, cause a machine to:

receive from a first requester a request to write a second indicator that comprises an identifier of the first requester to a first indicator that indicates if a component is available;

determine, in response to being accessed by a the write request received from the first requester, whether a component is available; and

replace, if the component is available, a the first indicator indicating that the shared resource is available, with a the second indicator reducing access to the component, to permit access to the component by the first requester.

47-51. (cancelled)

52. (currently amended):

The article of ~~claim 47, claim 46~~, wherein the sequences of instructions that cause the machine to determine, in response to being accessed by the write request received from the first requester, whether the component is available comprise sequences of instructions that, when executed, cause the machine to determine, in response to being accessed the request to write the second indicator by the first requester, a presence of the first indicator.

53. (currently amended):

The article of ~~claim 47, claim 46~~, wherein the sequences of instructions that cause the machine to determine, in response to being accessed by the write request received from the first requester, whether the component is available comprise sequences of instructions that, when executed, cause the machine to determine, in response to being accessed the request to write the second indicator by the first requester, that the component is available based on an external indicator.

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54. (currently amended):

The article of claim 53, wherein the sequences of instructions that cause the machine to determine, in response to being accessed by the write request received from the first requester, based on an external indicator that the component is available comprise sequences of instructions that, when executed, cause the machine to determine, in response to being accessed by receiving the write request from the first requester, that the component is available based on a flag.

55. (currently amended):

The article of ~~claim 47~~, claim 46, further comprising sequences of instructions that, when executed, cause the machine to receive, by execution of an operation by a second requester upon completion of access to the component by the second requester, a third indicator increasing access to the component to replace the second indicator.

56. (original):

The article of claim 55, wherein the sequences of instructions that cause the machine to receive, by execution of the operation by the second requester upon completion of access to the component by the second requester, the third indicator increasing access to the component to replace the second indicator comprise sequences of instructions that, when executed, cause the machine to receive, by execution of a write of the third indicator by the second requester upon completion of access to the component by the second requester, the third indicator increasing access to the component to replace the second indicator.

57. (original):

The article of claim 56, wherein the first requester and the second requester comprise processes.

58. (original):

The article of claim 56, wherein the first requester and the second requester comprise one requester.

59. (original):

The article of claim 56, wherein the first indicator and the third indicator comprise a same indicator.

60. (currently amended):

An article of manufacture comprising a machine-accessible medium including thereon sequences of instructions that, when executed, cause a machine to:

receive from a first requester a request to write a second indicator that comprises an identifier of the first requester to a first indicator that indicates if a component is available;
determine, in response to being accessed by a receiving the write request from the first requester, whether a the component is available;

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prohibit accesses by one or more additional requesters;
replace, because the component is available, ~~a~~the first indicator indicating that the component is available, with ~~a~~the second indicator reducing access to the component;
and allow the first requester to indicate that the component is available.

61-63. (cancelled)

64. (currently amended):

The article of ~~claim 62~~, claim 60, wherein the first indicator and the second indicator are maintained in registers ~~comprises a set-by-write register~~ registers written to by processes attempting to access the component.

65. (cancelled)

66. (currently amended):

The article of ~~claim 62~~, claim 60, wherein the sequences of instructions that cause the machine to prohibit accesses by one or more additional requesters comprise sequences of instructions that, when executed, cause the machine to prohibit writes of identifiers of processes attempting to access the component by one or more additional requesters.

67. (currently amended):

The article of ~~claim 62~~, claim 60, wherein the sequences of instructions that cause the machine to determine, in response to being accessed by receiving the write request from the first requester, whether the component is available comprise sequences of instructions that, when executed, cause the machine to determine, in response to being accessed by receiving the write request from the first requester, a presence of the first indicator.

68. (currently amended):

The article of ~~claim 62~~, claim 60, wherein the sequences of instructions that cause the machine to determine, in response to being accessed by receiving the write request from the first requester, whether the component is available comprise sequences of instructions that, when executed, cause the machine to determine, in response to being accessed by receiving the write request from the first requester, that the component is available based on an external indicator.

69. (currently amended):

The article of claim 68, wherein the sequences of instructions that cause the machine to determine, in response to being accessed by receiving the write request from the first requester, based on an external indicator that the component is available comprise sequences of instructions that, when executed, cause the machine to determine, in response to being accessed by receiving the write request from the first requester, that the component is available based on a flag.

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70. (currently amended):

The article of ~~claim 62~~, claim 60, further comprising sequences of instructions that, when executed, cause a machine to:

- receive from a second requester a third indicator increasing access to the component;
- determine, because of receiving third indicator, that access to the component has been increased; and
- replace the second indicator with the third indicator increasing access to the component.

71. (original):

The article of claim 70, wherein the first requester and the second requester comprise one requester.

72. (currently amended):

An apparatus comprising:

- a resource;
- a storage area in the resource;
- a first value in the storage area, which the storage area changes to a second value in response to access a request from a requester to write an identifier of the requester to the storage area; and
- the second value in the storage area.

73. (original):

The apparatus of claim 72, wherein the resource comprises a peripheral device in a computer system.

74. (original):

The apparatus of claim 72, wherein the storage area comprises a register.

75-76. (cancelled)

77. (original):

The apparatus of claim 72, wherein the first value indicates that the resource is available.

78. (original):

The apparatus of claim 72, wherein the second value reduces access to the resource.

79. (original):

The apparatus of claim 72, wherein the storage area is linked to other storage areas containing the first value.

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80. (original):

The apparatus of claim 79, wherein the other storage areas change the first value to the second value when the storage area changes the first value to the second value.